

Workshop on PCBs in Puget Sound and Georgia Basin Ecosystems: Recommendations from the Abiotic Fate Workgroup

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Abstract

During the Pacific Northwest Society of Environmental Toxicology and Chemistry's September 2002 sponsored workshop on PCBs in Puget Sound and Georgia Basin Ecosystems, a subgroup of scientists met to develop recommendations for understanding the abiotic fate of PCBs in the ecosystems. These recommendations include the development of a fugacity-based multimedia mass balance model for the larger, combined ecosystem that would consist of three interconnected models, each being similar to the equilibrium criterion (EQC) model, that represent Georgia Basin, Puget Sound and the Straight of Juan de Fuca. Some of the key input parameters to the model would include the net flux of PCBs into the three basins from key tributaries, the atmosphere, aquatic biota, and the Pacific Ocean. In addition, data on the partitioning of PCBs between the dissolved and particulate phases in the water column and the sediment would be required. The model would be used to predict water column concentrations in each of the three basins and to estimate PCB exposure concentrations to aquatic organisms.